

We claim:

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1. A method for providing an electronic course for instruction of students via an electronic communications network, the method comprising the steps of:
describing an illustrative scenario for an electronically deliverable course;
defining at least one possible role assignment for a corresponding student of the course based on the illustrative scenario;
providing a task for the student based on the role assignment and the
10 scenario; and
establishing a guidance system accessible to the student over the electronic communications network to provide guidance for solving the task.
 - 15 2. The method according to claim 1 wherein the guidance system comprises providing a list of electronic tools to the student, the electronic tools being associated with a corresponding scenario.
 3. The method according to claim 1 wherein the electronic tools comprise a calculator for determining an intermediate result or precursor to the solution of the task.
 - 20 ~~546~~ 4. The method according to claim 1 wherein the establishing step comprises tailoring the level of guidance to the student based on an assigned level of the student.
 5. The method according to claim 1 wherein the establishing step comprises tailoring the level of guidance to the student based on an assigned level of the student from previous feedback from an instructor during the course.
 - 25 6. The method according to claim 1 wherein the establishing step comprises developing a hint on solving a task as a lowest level of guidance.

7. The method according to claim 1 wherein the establishing step comprises developing a specific direction on solving a task as a highest level of guidance.

5 8. The method according to claim 1 wherein the establishing step comprises establishing an electronic library of presentations associated with the task, the electronic library being accessible via the electronic communications network.

10 9. The method according to claim 8 wherein the presentations are selected from the group consisting of an audio presentation, a visual presentation, and multimedia presentation.

15 10. The method according to claim 1 wherein the establishing step comprises associating a group of different levels of guidance for a task and allowing a student to select one or more desired levels of guidance from the levels of available guidance.

20 11. The method according to claim 1 wherein the establishing step comprises supporting a real-time communications link to other students as the guidance system.

25 12. The method according to claim 1 wherein the establishing step comprises supporting an e-mail communications link to other students as the guidance system.

13. The method according to claim 1 wherein the establishing step comprises supporting a communications link to an instructor as the guidance system.

14. The method according to claim 1 further comprising the step of assigning the at least one possible role assignment to each student of the course.

15. A method for developing an electronic course for instruction of students via an electronic communications network, the method comprising the steps of:

5 organizing an electronically deliverable course into a group of modules of different subject matters related to a common topic of the course; simultaneously developing at least two of the modules for the course;

10 testing an electronic presentation of at least one of the developed modules with a test subject representative of a student of the course prior to placing the course on the electronic communications network for access to students of the course.

15 16. The method according to claim 15 further comprising the step of: making at least one tested module accessible to students of the course via the electronic communications network prior to the testing of the entire group of modules for the course.

17. The method according to claim 15 wherein the developing step further comprises assigning different independent teams of authors associated with corresponding modules.

20 18. The method according to claim 15 wherein the organizing comprises associating electronic tools with corresponding modules.

19. The method according to claim 15 wherein the organizing step includes gathering reading materials related to the subject matter of the modules.

20. The method according to claim 15 wherein testing comprises simultaneously testing multiple modules affiliated with the course.

25 21. The method according to claim 15 wherein the developing step comprises referencing a template from at least one earlier course to determine presentational format of a module for a subsequent course.

22. The method according to claim 15 wherein the organizing step comprises defining tasks for each module and delineating the boundaries between different modules based on the subject matter related to a solution of the task.

23. A method for developing an electronic course for instructing students via an electronic communications network, the method comprising the steps of:

defining the scope of subject matter to be covered in at least one course;

establishing an organizational structure for the at least one course based on the defined scope;

associating strategic learning elements, expressible as reference data, with the organizational structure; and

supporting presentation and interaction of the organizational structure and the strategic learning elements with students consistent with an instruction-student interaction model.

24. The method according to claim 23 wherein the defining of the scope of the at least one course comprises defining the scope of a suite of courses to be commensurate with the scope of a textbook-based university course.

25. The method according to claim 23 further comprising defining an electronic learning environment having a problem-based aspect for the students.

26. The method according to claim 23 wherein the defining of the electronic learning environment comprises preparing a fact scenario for the at least one course.

27. The method according to claim 23 wherein the defining an electronic learning environment comprises creating a map of relationships among tasks within the at least one course.

28. The method according to claim 23 wherein the supporting step includes an audience strategic element as the strategic element, the audience

strategic element compensating for a learning obstacle of a particular classification of the students.

29. The method according to claim 23 wherein the supporting step includes a content strategic element as the strategic element, the content strategic element entailing a selected subject matter selected for inclusion in the at least one course based upon an identified learning objective for the at least one course.

30. The method according to claim 23 wherein the supporting step includes a motivational strategic element as the strategic element, the motivational strategic element tending to motivate the students to participate in the at least one course.

31. The method according to claim 23 wherein the supporting step includes a feedback strategic element as the strategic element, the feedback strategic element comprising a communications mechanism for a student to receive a response with respect to the student's performance on an assigned task assigned to the student.

32. The method according to claim 23 wherein the supporting step includes a support strategic element as the strategic element, the support strategic element comprising a guidance system for providing guidance to a student on solving a task in a problem-based learning environment.

33. The method according to claim 23 wherein the supporting step includes an information strategic element as the strategic element, the information strategic element organizing course material in an indexed or searchable manner.

34. The method according to claim 23 wherein the supporting step includes a reflection strategic element as the strategic element, the reflection strategic element comprising a feedback mechanism, integrated into the at least one course, for building confidence in the student's use of knowledge provided in the at least one course.

35. A method for developing an electronic course for instruction of students via an electronic communications network, the method comprising the steps of:

designing elements of a course;

building at least one greater-resource element prior to at least one lesser-resource element of the course;

simultaneously assembling the at least one greater-resource element and the at least one lesser-resource element into a course component of the course;

testing the course component of the electronic course for association with a storage device of a central data processor.

36. The method of claim 35 further comprising the step of forming the course from a plurality of course components.

37. The method of claim 36 further comprising the step of testing the formed course and the underlying course components, wherein the testing is conducted on a non-electronic form of the course.

38. The method of claim 36 further comprising the step of testing the formed course and the underlying course components, wherein the testing is conducted on an electronic version of the course.

39. The method of claim 35 further comprising the step of testing the course and the underlying course components, wherein the testing is conducted on an electronic version of the course over a communications network by test subjects representative of students of the course.

40. The method of claim 35 further comprising the step of providing student terminals with access to the course prior to the development of an entire course suite including the course.

41. The method of claim 40 further comprising developing at least one additional course within the course suite during the provision of said access.